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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,212	12/28/2001	Takeshi Imanishi	IMANISHI2B	4127

1444 7590 08/27/2002

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EXAMINER

CRANE, LAWRENCE E

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 08/27/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/029,212	Applicant(s) Imanishi et al.	
	Examiner L. E. Crane	Group Art Unit 1623	

- THE MAILING DATE of this communication appears on the cover sheet beneath the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **--3--** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be filed after six months from the date of this communication.
- If the prior for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 USC §133).

Status

- ☒ Responsive to communication(s) filed on **-12/29/01-**.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claims **--1-8--** are pending in the application. Claims **-[]-** have been cancelled.
Of the above claim(s) **--[]--** is/are withdrawn from consideration.
- ☐ Claim(s) **--[]--** is/are allowed.
- ☒ Claims **--1-8--** are rejected.
- ☐ Claim(s) **--[]--** is/are objected to.
- ☐ Claim(s) **--[]--** are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on **-[]-** are ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on **-[]-** is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119(a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) **-[]-**.
- ☒ received in the national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: **-[]-**.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). **--01--**
- ☒ Notice of Reference(s) Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Other: **-Request for ECRF-**

U.S. Patent Trademark Office

Office Action Summary

PTO-326 (Rev. 06/19/01)
S. N. 10/029,212

Part of Paper No. **04**
Copy for ☒ **FILE** ☐ **APPLICANT**

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No claims have been cancelled and the preliminary amendment to the disclosure filed December 28, 2001 has been entered as requested. An Information Disclosure Statement (IDS) has also been received and made of record. See individual IDS's for references not made of record
5 for lack of complete bibliographic information.

Claims 1-8 remain in the case.

Claims 1 and 6-8 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of ordinary skill in the art to
10 which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claims 1 and 6-8 the term "amidite" is enabled within the instant disclosure only for phosphoramidites (amide of a phosphite), but is not enabled for any other inorganic lower oxidation state ("sulfoamidite,"
15 "arsenoamidite," etc.) inorganic amide. Limitation to the enabled embodiments is respectfully requested, particularly in light of the complete lack of guidance directed to how to make or use any of the other inorganic amidite alternatives implied by the noted term.

Claims 1 and 3-8 are rejected under 35 U.S.C. §112, second
20 paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 4-5, the term "an analogue of a purine or pyrimidine nucleic acid base" is lacking in properly defined metes and
25 bounds because there is no subsequent definition of what structural feature(s) or shape (isosters?) is used to determine what substituent

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groups are within the scope of the noted term and which substituent groups are not. This failure renders the instant claim indefinite for failure to particularly point out and distinctly claim the subject matter. The same problem reoccurs in claim 5 at lines 6-7.

5 In claim 1 the term "amidite" appears to be incomplete (examiner can not determine the structural limitations implied by the noted term standing alone). Did applicant intend the term to read -- phosphoramidite -- ? .

10 In claim 3, line 3, the term "phosphano" appears to be technically incorrect. Did applicant intend the term to read -- phosphityl --?

Claim 4 is incomplete for failure to define the variable "B."

Claim 4 lacks terminal punctuation.

15 In claim 5, the variable "W1," "W2," "B1," "n1," "n2" and "n3" are incorrectly printed; to be consistent with the variables presented in the chemical structure at line 3, the numbers should appear as either superscripts; e.g. -- B¹ --; or subscripts; e.g. -- n₁ --.

In claim 6, last line, the term "phosphoramidete" is a misspelling.

Claims 7-8 lack proper antecedent basis because neither claims 4 or claim 5 includes any reference to an amidite or phosphoramidite.

20 In claim 8 last line, the term "phsphoramidite" is a misspelling.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension

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of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F. 2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. §1.78(d).

Effective January 1, 1994, a registered attorney or agent or record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 C.F.R. §3.73(b).

Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,268,490. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds being claimed appear to be directed to substantially overlapping subject matter.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. §103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C.

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§103(c) and potential 35 U.S.C. §§102(f) or (g) prior art under 35 U.S.C. §103(a).

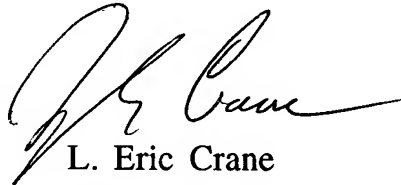
5 Papers related to this application may be submitted to Group 1600 via facsimile transmission(FAX). The transmission of such papers must conform with the notice published in the Official Gazette (1096 OG 30, November 15, 1989). The telephone numbers for the FAX machines operated by Group 1600 are (703) 308-4556 and 703-305-3592.

10 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is 703-308-4639. The examiner can normally be reached between 9:30 AM and 5:00 PM, Monday through Friday.

15 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Johann Richter, can be reached at (703)-308-4532.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is 703-308-1235.

20 LECrane:lec
06/27/02


L. Eric Crane
Patent Examiner
Group 1600

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. §1.821-1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. §1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. The application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. §1.821(c).
- ☒ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. §1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has not been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. §1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."
- ☐ 5. A computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. §1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. §1.821(e).
- ☐ 7. Other: -[-]-

Applicant Must Provide:

☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing."

☐ An initial or substitute paper copy of the "Sequence Listing," as well as an amendment directing its entry into the specification.

☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. §1.181(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules interpretation, call (703) 308-4216;

For CRF submission help, call (703) 308-4212;

For Patent software help, call (703) 308-6856.

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

SN 10/029,212

COPY FOR ☒ File ☐ Applicant ☐ Return with Response

Attachment to P. N. 04